Figure 1 Plasmid pCMV.Bx08.gp160

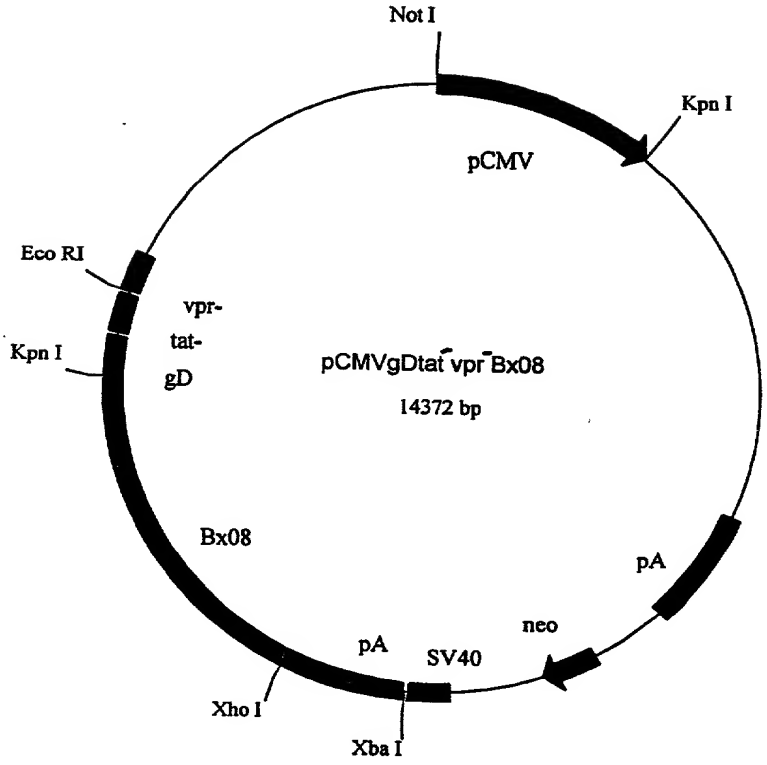


Figure 2 DNA immunization plasmid pCMV3Bx08.

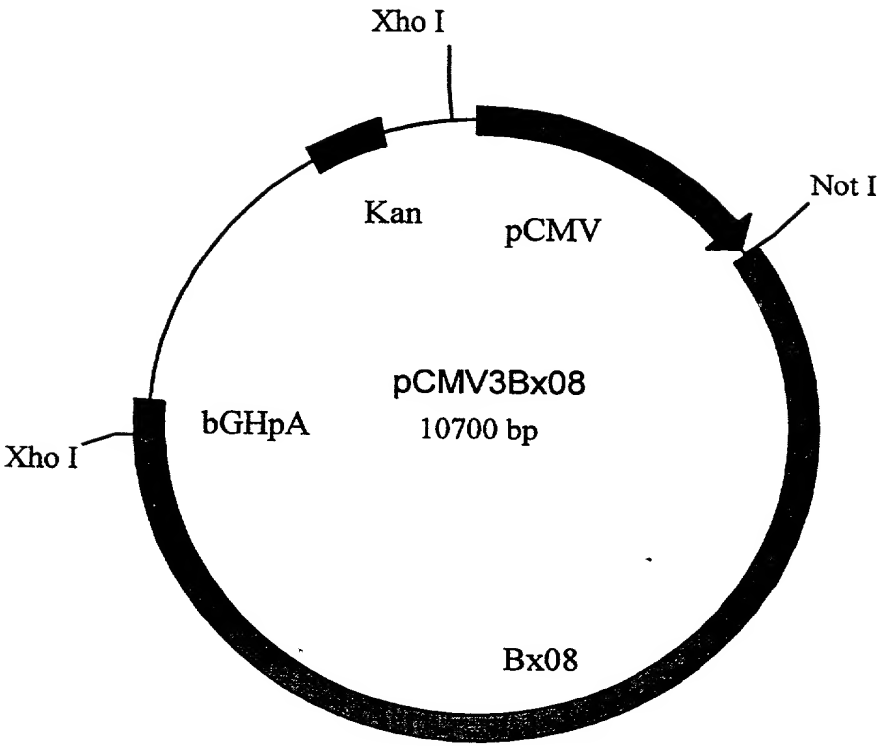


Figure 3. Pseudovirion Expression Plasmid p133B1 HIV-1 Bx08

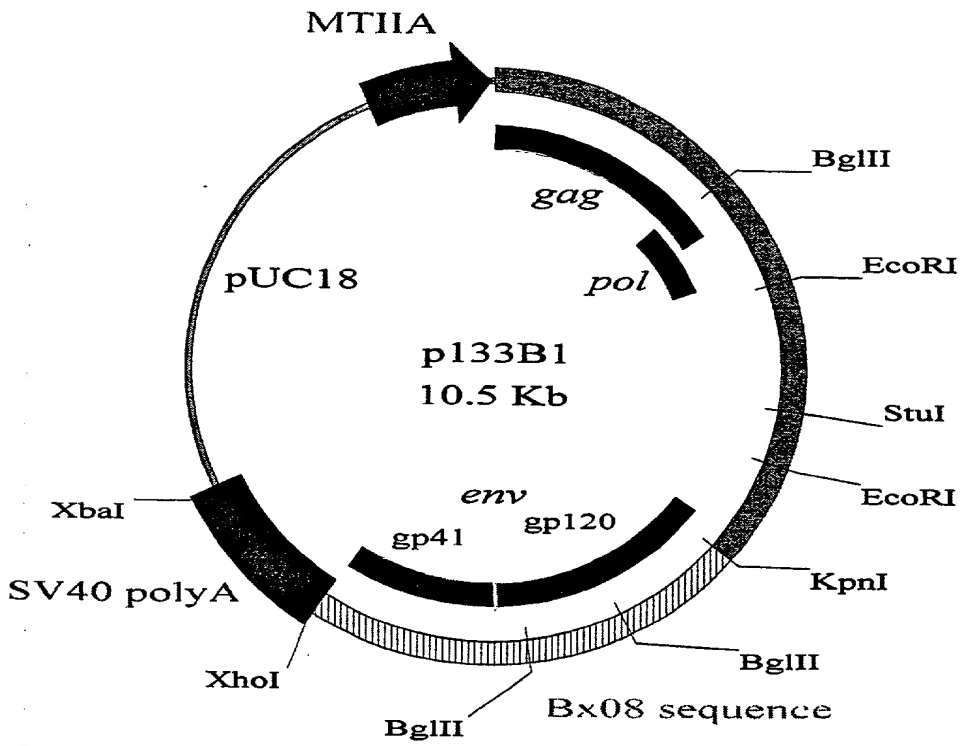
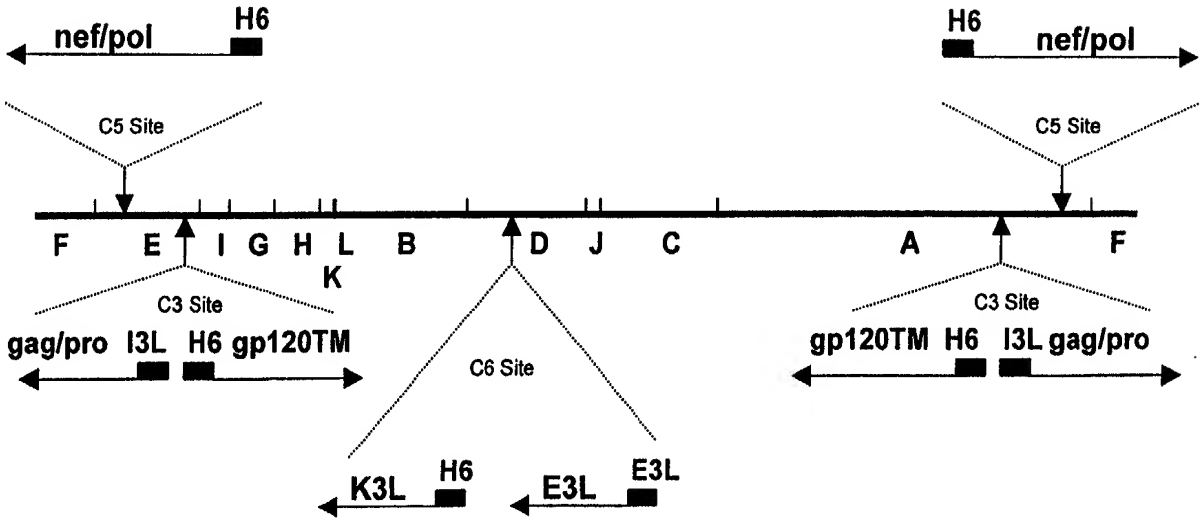


FIGURE 4

ALVAC(2)120(BX08)GNP (vCP1579)

(ALVAC *Xho*I Restriction Map)



~~Figure 1.~~ A5A Time line of ~~PMC~~ vaccine trial

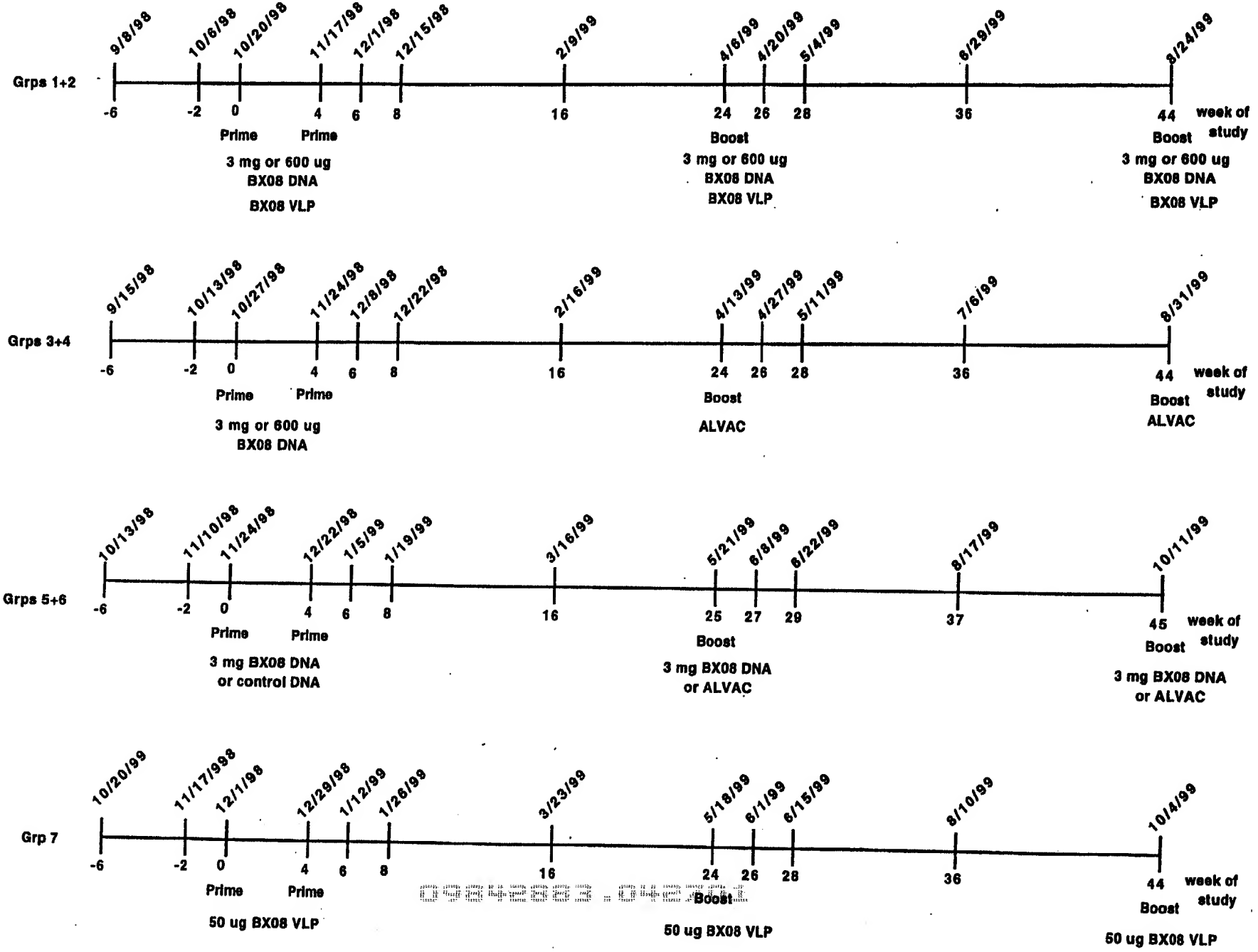


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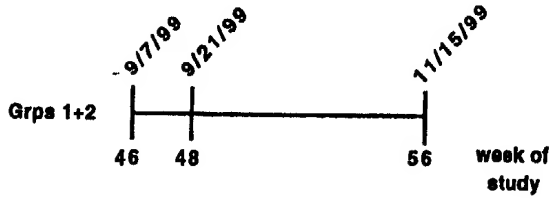
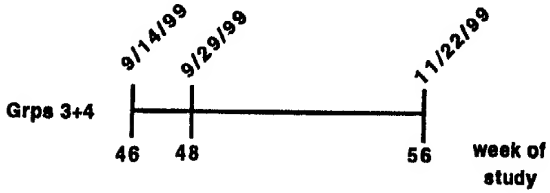
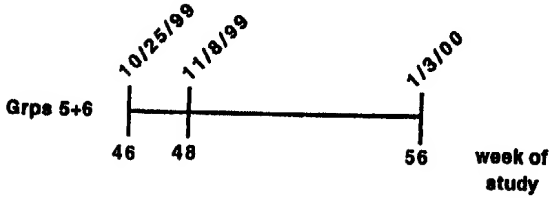
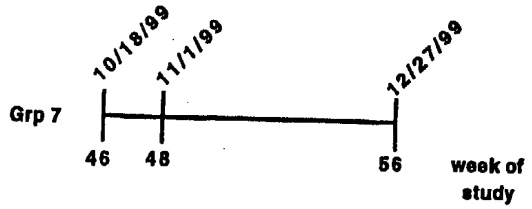
Figure 5B continued









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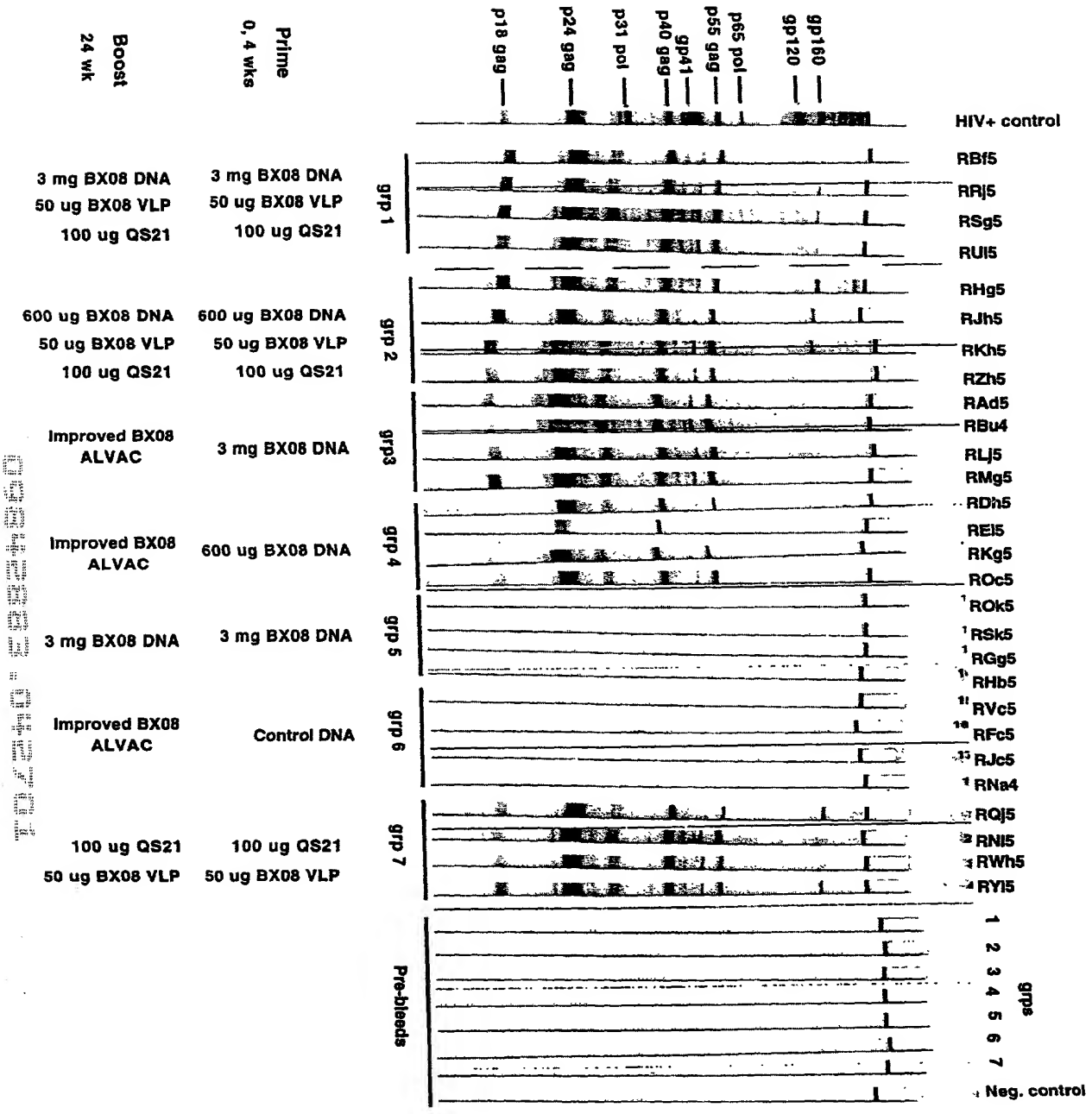
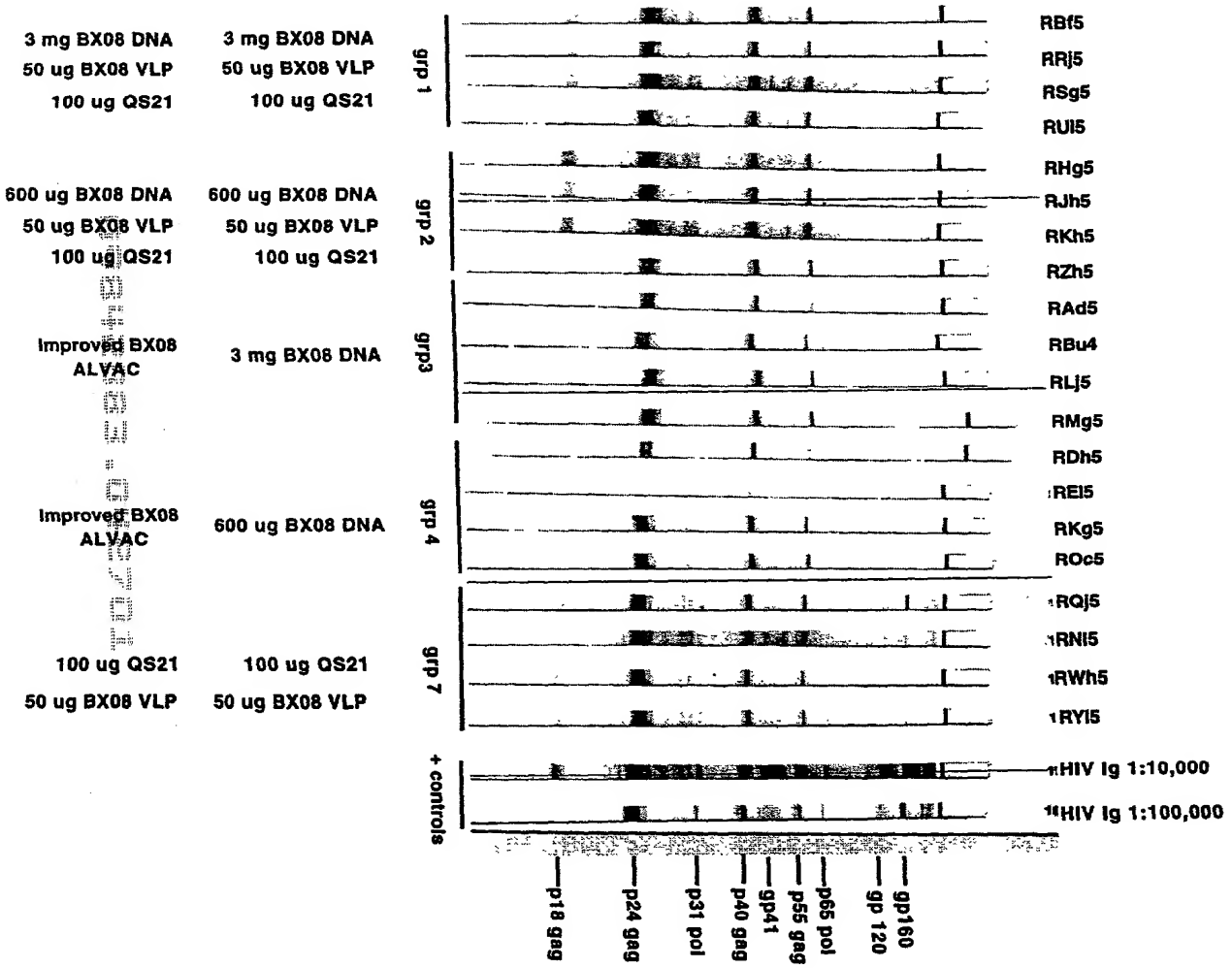


Figure 2. 26 wk macaque ...um immunoreactivity to HIV an... ...ns (1:100 dlln)

647

Figure 2: 26 wk macaque serum immunoreactivity to HIV antigens (1:1000 dilu)



2-14-POX R

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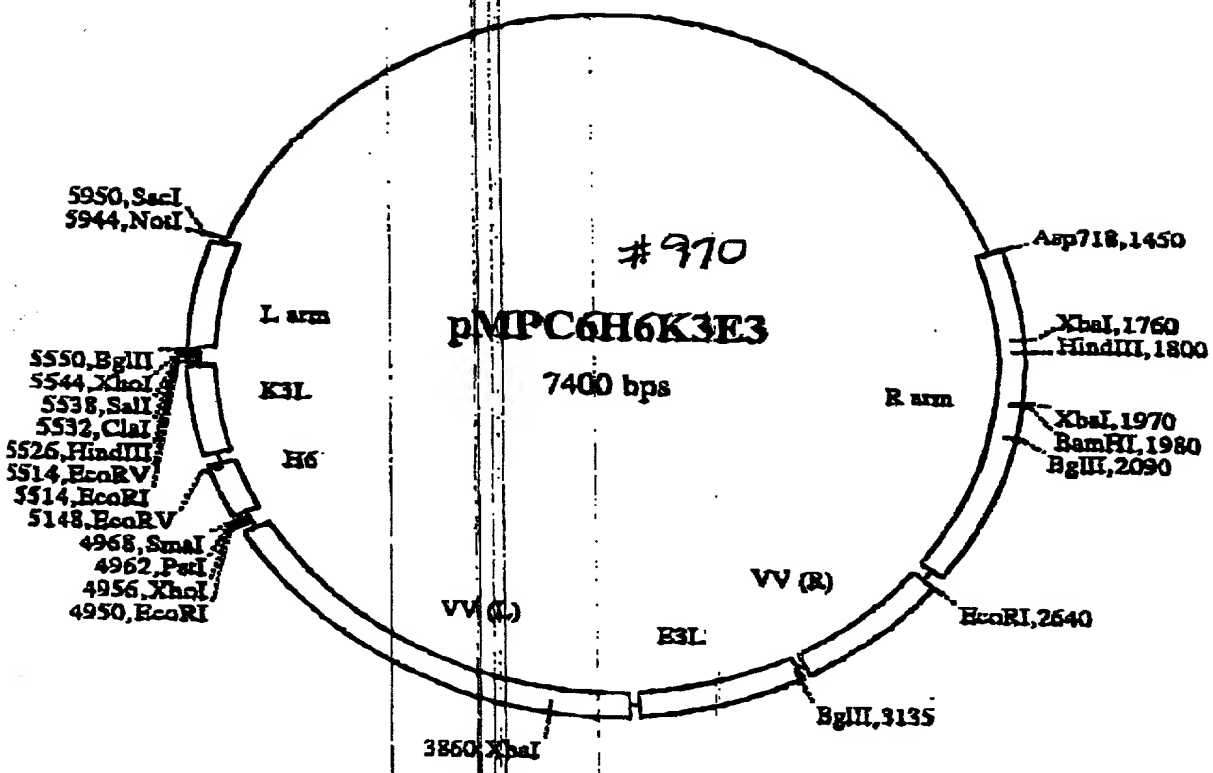
#970
pMPC6H6K3E3
7400 bps
L arm
K3L
H6
R arm
VV (L)
VV (R)
E3L
5950,SacI
5944,NotI
5550,BglII
5544,XhoI
5538,SalI
5532,ClaI
5526,HindIII
5514,EcoRV
5514,EcoRI
5148,EcoRV
4968,SmaI
4962,PstI
4956,XhoI
4950,EcoRI
3860,XbaI
BglII,3135
EcoRI,2640
Asp718,1450
XbaI,1760
HindIII,1800
XbaI,1970
BamHI,1980
BglII,2090

2-110-HIV

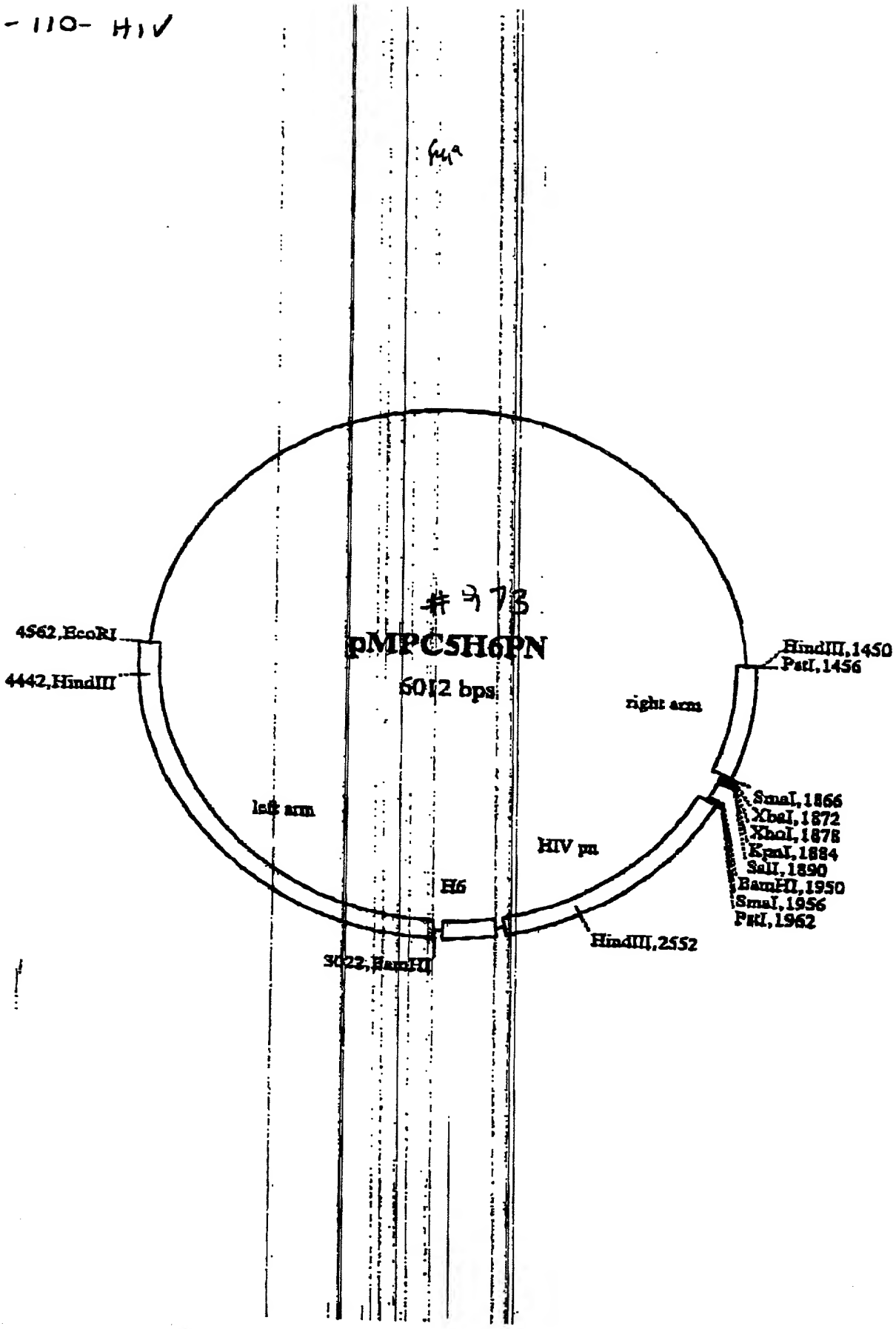
#373
pMPC5H6PN
6012 bps
4562,EcoRI
4442,HindIII
HindIII,1450
PstI,1456
right arm
SmaI,1866
XbaI,1872
XhoI,1878
KpnI,1884
SalI,1890
BamHI,1950
SmaI,1956
PstI,1962
left arm
HIV pn
H6
HindIII,2552
3022,BamHI

Figure 10 Plasmid pHIV76

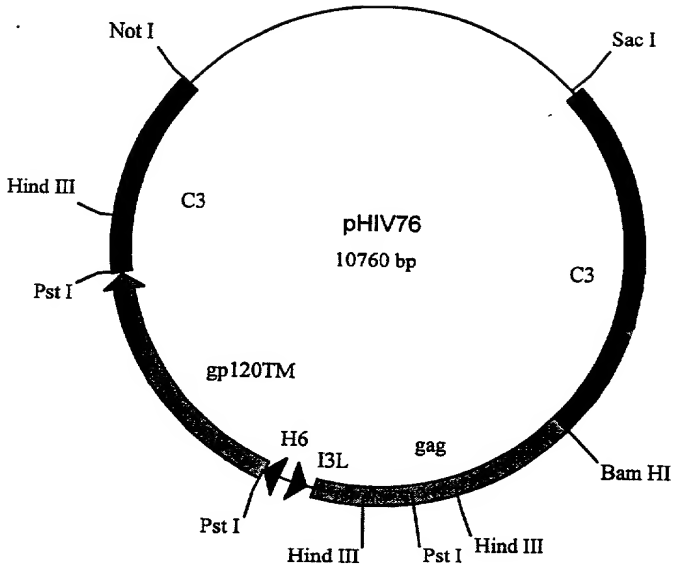

Figure 11

vCP1579: H6/HIV Pol/Nef epitope cassette in ALVAC C5 site

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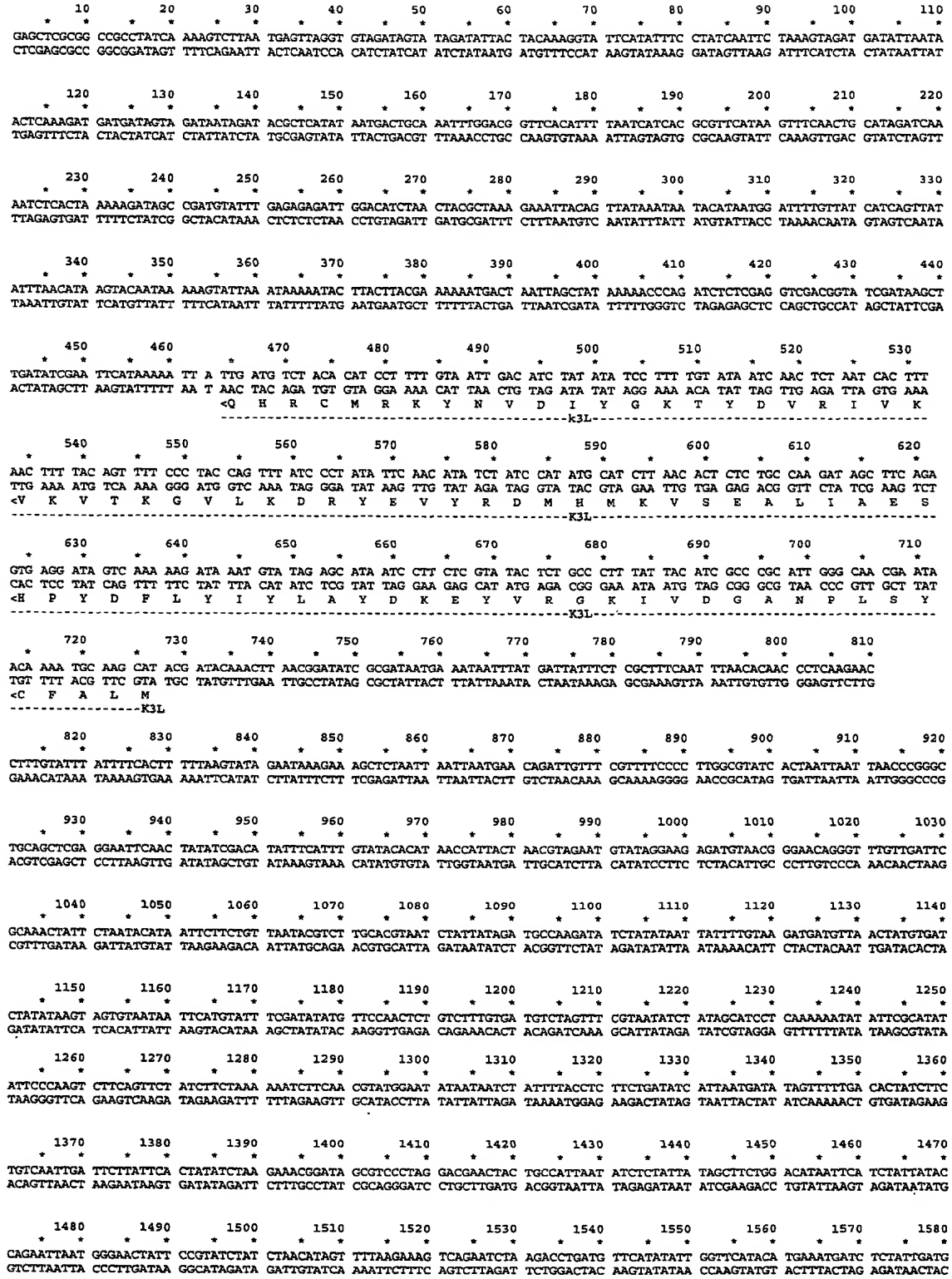
   1 TTTTTTTCAT TATTTAGAAA TTATGCATTT TAGATCTTTA TAAGCGGCCG TGATTAACTA
  61 GTCATAAAAA CCCGGGATCG ATTCTAGACT CGAGGGTACC GGATCTTAAT TAATTAGTCA
 121 TCAGGCAGGG CGAGAACGAG ACTATCTGCT CGTTAATTAA TTAGGTCGAC GGATCCCCCA
 181 ACAAAAACTA ATCAGCTATC GGGGTTAATT AATTAGTTAT TAGACAAGGT GAAAACGAAA
 241 CTATTTGTAG CTTAATTAAT TAGAGCTTCT TTATTCTATA CTTAAAAAGT GAAAATAAAT
 301 ACAAAGGTTC TTGAGGGTTG TGTTAAATTG AAAGCGAGAA ATAATCATAA ATTATTTCAT
 361 TATCGCGATA TCCGTTAAGT TTGTATCGTA ATGCCACTAA CAGAAGAAGC AGAGCTAGAA
 421 CTGGCAGAAA ACAGAGAGAT TCTAAAAGAA CCAGTACATG GAGTGTATTA TGACCCATCA
 481 AAAGACTTAA TAGCAGAAAT ACAGAAGCAG GGGCAAGGCC AATGGACATA TCAAATTTAT
 541 CAAGAGCCAT TTAAAAATCT GAAAACAGGA ATGGAGTGGA GATTTGATTC TAGATTAGCA
 601 TTTCATCACG TAGCTAGAGA ATTACATCCT GAATATTTTA AAAATTGTAT GGCAATATTC
 661 CAAAGTAGCA TGACAAAAAT CTTAGAGCCT TTTAGAAAAC AAAATCCAGA CATAGTTATC
 721 TATCAATACA TGGATGATTT GTATGTAGGA TCTGACTTAG AAATAGGGCA GCATAGAACA
 781 AAAATAGAGG AGCTGAGACA ACATCTGTTG AGGTGGGGAC TTACAACCAT GGTAGGTTTT
 841 CCAGTAACAC CTCAAGTACC TTTAAGACCA ATGACTTACA AAGCAGCTGT AGATCTTTCT
 901 CACTTTTTAA AAGAAAAAGG AGGTTTAGAA GGGCTAATTC ATTCTCAACG AAGACAAGAT
 961 ATTCTTGATT TGTGGATTTA TCATACACAA GGATATTTTC CTGATTGGCA GAATTACACA
1021 CCAGGACCAG GAGTCAGATA CCCATTAACC TTTGGTTGGT GCTACAAGCT AGTACCAATG
1081 ATTGAGACTG TACCAGTAAA ATTAAAGCCA GGAATGGATG GCCCAAAAGT TAAACAATGG
1141 CCATTGACAG AAGAAAAAAT AAAAGCATTA GTAGAAATTT GTACAGAGAT GGAAAAGGAA
1201 GGGAAAATTT CAAAAATTGG GCCTTAATTT TTCTGCAGCC CGGGGGATCC TTTTTATAGC
1261 TAATTAGTCA CGTACCTTTG AGAGTACCAC TTCAGCTACC TCTTTTGTGT CTCAGAGTAA
1321 CTTTCTTTAA TCAATTCCAA AACAG
```

Upstream (right) flanking sequence: 1-266
VV H6 promoter: 267-390
HIV pol/nef/pol/nef/pol cassette: 391-1227
Downstream (left) flanking sequence: 1227-1345

Figure 12

E3L and K3L genes in C6



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TATCACTGAT AAAGTAAGAG ACTTTTAACC ATTGAGTAAG ATATATACGA AAGGAACAAC TACTTCCTAT CTTATATGAG TTATCTTAAA CATGGTTGTT TGACAAGAGA

      1700       1710       1720       1730       1740       1750       1760       1770       1780       1790       1800
TATGAATCGT ATATCATCAT CTGAAATAAT CATGTAAGGC ATACATTTAA CAATTAGAGA CTTGTCTCCT GTTATCAATA TACTATTCTT GTGATAATTT ATGTGTGAGG
ATACTTAGCA TATAGTAGTA GACTTTATTA GTACATTCCG TATGTAAATT GTTAATCTCT GAACAGAGGA CAATAGTTAT ATGATAAGAA CACTATTAAA TACACACTCC

      1810       1820       1830       1840       1850       1860       1870       1880       1890       1900       1910
CAAATTTGTC CACGTTCTTT AATTTTGTTA TAGTAGATAT CAAATCCAAT GGAGCTACAG TTCTTGGCTT AAACAGATAT AGTTTTTCTG GAACAAATTC TACAACATTA
GTTTAAACAG GTGCAAGAAA TTAAAACAAT ATCATCTATA GTTTAGGTTA CCTCGATGTC AAGAACCGAA TTTGTCTATA TCAAAAAGAC CTTGTTTAAG ATGTTGTAAT

      1920       1930       1940       1950       1960       1970       1980       1990       2000       2010       2020
TTATAAAGGA CTTTGGGTAG ATAAGTGGGA TGAAATCCTA TTTTAATTAA TGCTATCGCA TTGTCCTCGT GCAAATATCC AAACGCTTTT GTGATAGTAT GGCATTCATT
AATATTTCCT GAAACCCATC TATTCACCCT ACTTTAGGAT AAAATTAATT ACGATAGCGT AACAGGAGCA CGTTTATAGG TTTGCGAAAA CACTATCATA CCGTAAGTAA

      2030       2040       2050       2060       2070       2080       2090       2100       2110       2120       2130
GTCTAGAAAC GCTCTACGAA TATCTGTGAC AGATATCATC TTTAGAGAAT ATACTAGTCG CGTTAATAGT ACTACAATTT GTATTTTTTA ATCTATCTCA ATAAAAAAAT
CAGATCTTTG CGAGATGCTT ATAGACACTG TCTATAGTAG AAATCTCTTA TATGATCAGC GCAATTATCA TGATGTTAAA CATAAAAAAT TAGATAGAGT TATTTTTTTA

      2140       2150       2160       2170       2180       2190       2200       2210       2220       2230
TAATATGTAT GATTCAATGT ATAACTAAAC TACTAACTGT TATTGATAAC TAGAATCA GAA TCT AAT GAT GAC GTA ACC AAG AAG TTT ATC TAC TGC CAA
ATTATACATA CTAAGTTACA TATTGATTTG ATGATTGACA ATAACTATTG ATCTTAGT CTT AGA TTA CTA CTG CAT TGG TTC TTC AAA TAG ATG ACG GTT
                                                            <F  R  I  I  V  Y  G  L  L  K  D  V  A  L
                                                            -------E3L-----------------------------------------------

      2240       2250       2260       2270       2280       2290       2300       2310       2320
TTT AGC TGC ATT ATT TTT AGC ATC TCG TTT AGA TTT TCC ATC TGC CTT ATC GAA TAC TCT TCC GTC GAT GTC TAC ACA GGC ATA AAA TGT
AAA TCG ACG TAA TAA AAA TCG TAG AGC AAA TCT AAA AGG TAG ACG GAA TAG CTT ATG AGA AGG CAG CTA CAG ATG TGT CCG TAT TTT ACA
<K  A  A  N  N  K  A  D  R  K  S  K  G  D  A  K  D  F  V  R  G  D  I  D  V  C  A  Y  F  T
-----------------------------------------------------------------E3L-----------------------------------------------

2330       2340       2350       2360       2370       2380       2390       2400       2410
AGG AGA GTT ACT AGG CCC AAC TGA TTC AAT ACG AAA AGA CCA ATC TCT CTT AGT TAT TTG GCA GTA CTC ATT AAT AAT GGT GAC AGG GTT
TCC TCT CAA TGA TCC GGG TTG ACT AAG TTA TGC TTT TCT GGT TAG AGA GAA TCA ATA AAC CGT CAT GAG TAA TTA TTA CCA CTG TCC CAA
<P  S  N  S  P  G  V  S  E  I  R  F  S  W  D  R  K  T  I  Q  C  Y  E  N  I  I  T  V  P  N
-----------------------------------------------------------------E3L-----------------------------------------------

      2420       2430       2440       2450       2460       2470       2480       2490       2500
AGC ATC TTT CCA ATC AAT AAT TTT TTT AGC CGG AAT AAC ATC ATC AAA AGA CTT ATG ATC CTC TCT CAT TGA TTT TTC GCG GGA TAC ATC
TCG TAG AAA GGT TAG TTA TTA AAA AAA TCG GCC TTA TTG TAG TAG TTT TCT GAA TAC TAG GAG AGA GTA ACT AAA AAG CGC CCT ATG TAG
<A  D  K  W  D  I  I  K  K  A  P  I  V  D  D  F  S  K  H  D  E  R  M  S  K  E  R  S  V  D
-----------------------------------------------------------------E3L-----------------------------------------------

      2510       2520       2530       2540       2550       2560       2570       2580       2590
ATC TAT TAT GAC GTC AGC CAT AGC ATC AGC ATC CGG CTT ATC CGC CTC CGT TGT CAT AAA CCA ACG AGG AGG AAT ATC GTC GGA GCT GTA
TAG ATA ATA CTG CAG TCG GTA TCG TAG TCG TAG GCC GAA TAG GCG GAG GCA ACA GTA TTT GGT TGC TCC TCC TTA TAG CAG CCT CGA CAT
<D  I  I  V  D  A  M  A  D  A  D  P  K  D  A  E  T  T  M  F  W  R  P  P  I  D  D  S  S  Y
-----------------------------------------------------------------E3L-----------------------------------------------

      2600       2610       2620       2630       2640       2650       2660       2670       2680
CAC CAT AGC ACT ACG TTG AAG ATC GTA CAG AGC TTT ATT AAC TTC TCG CTT CTC CAT ATT AAG TTG TCT AGT TAG TTG TGC AGC AGT AGC
GTG GTA TCG TGA TGC AAC TTC TAG CAT GTC TCG AAA TAA TTG AAG AGC GAA GAG GTA TAA TTC AAC AGA TCA ATC AAC ACG TCG TCA TCG
<V  M  A  S  R  Q  L  D  Y  L  A  K  N  V  E  R  K  E  M  N  L  Q  R  T  L  Q  A  A  T  A
-----------------------------------------------------------------E3L-----------------------------------------------

      2690       2700       2710       2720       2730       2740       2750       2760       2770
TCC TTC GAT TCC AAT GTT TTT AAT AGC CGC ACA CAC AAT CTC TGC GTC AGA ACG CTC GTC AAT ATA GAT CTT AGA CAT TT TTAGAGAGAA
AGG AAG CTA AGG TTA CAA AAA TTA TCG GCG TGT GTG TTA GAG ACG CAG TCT TGC GAG CAG TTA TAT CTA GAA TCT GTA AA AATCTCTCTT
<G  E  I  G  I  N  K  I  A  A  C  V  I  E  A  D  S  R  E  D  I  Y  I  K  S  M
-----------------------------------------------------------------E3L-----------------------------

      2780       2790       2800       2810       2820       2830       2840       2850       2860       2870       2880
CTAACACAAC CAGCAATAAA ACTGAACCTA CTTTATCATT TTTTTATTCA TCATCCTCTG GTGGTTCGTC GTTTCTATCG AATGTAGCTC TGATTAACCC GTCATCTATA
GATTGTGTTG GTCGTTATTT TGACTTGGAT GAAATAGTAA AAAAATAAGT AGTAGGAGAC CACCAAGCAG CAAAGATAGC TTACATCGAG ACTAATTGGG CAGTAGATAT

      2890       2900       2910       2920       2930       2940       2950       2960       2970       2980       2990
GGTGATGCTG GTTCTGGAGA TTCTGGAGGA GATGGATTAT TATCTGGAAG AATCTCTGTT ATTTCCTTGT TTTCATGTAT CGATTGCGTT GTAACATTAA GATTGCGAAA
CCACTACGAC CAAGACCTCT AAGACCTCCT CTACCTAATA ATAGACCTTC TTAGAGACAA TAAAGGAACA AAAGTACATA GCTAACGCAA CATTGTAATT CTAACGCTTT

      3000       3010       3020       3030       3040       3050       3060       3070       3080       3090       3100
TGCTCTAAAT TTGGGAGGCT TAAAGTGTTG TTTGCAATCT CTACACGCGT GTCTAACTAG TGGAGGTTCG TCAGCTGCTC TAGTTTGAAT CATCATCGGC GTAGTATTCC
ACGAGATTTA AACCCTCCGA ATTTCACAAC AAACGTTAGA GATGTGCGCA CAGATTGATC ACCTCCAAGC AGTCGACGAG ATCAAACTTA GTAGTAGCCG CATCATAAGG
```

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ATGAAAATGT CAATCCTGTG CCACATAACA TAAAGAGCAG CTCTTGCAAT TTTATTAGCA ACATTGAGTG TAGGAAATAA AATAGATATA ACATAAGATG AGGAAAGAAT

      3220        3230        3240        3250        3260        3270        3280        3290        3300        3310        3320
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ATGCATTTTA TACCGAATAA GAGATAGCGA AGGAATTCTT TTTATTGATT AACTAGTCAA ATGAGTATAT ATAATTGAAA AAGTAAAATA TAAATCATAT AATAATGAAA
TACGTAAAAT ATGGCTTATT CTCTATCGCT TCCTTAAGAA AAATAACTAA TTGATCAGTT TACTCATATA TATTAACTTT TTCATTTTAT ATTTAGTATA TTATTACTTT

      3330        3340        3350        3360        3370        3380        3390        3400        3410        3420        3430
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CGAAATATCA GTAATAGACA GGAACTGGCA GATTCTTCTT CTAATGAAGT AAGTACTGCT AAATCTCCAA AATTAGATAA AAATGATACA GCAAATACAG CTTCATTCAA
GCTTTATAGT CATTATCTGT CCTTGACCGT CTAAGAAGAA GATTACTTCA TTCATGACGA TTTAGAGGTT TTAATCTATT TTTACTATGT CGTTTATGTC GAAGTAAGTT

      3440        3450        3460        3470        3480        3490        3500        3510        3520        3530        3540
      *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *
CGAATTACCT TTTAATTTTT TCAGACACAC CTTATTACAA ACTAACTAAG TCAGATGATG AGAAAGTAAA TATAAATTTA ACTTATGGGT ATAATATAAT AAAGATTCAT
GCTTAATGGA AAATTAAAAA AGTCTGTGTG GAATAATGTT TGATTGATTC AGTCTACTAC TCTTTCATTT ATATTTAAAT TGAATACCCA TATTATATTA TTTCTAAGTA

      3550        3560        3570        3580        3590        3600        3610        3620        3630        3640        3650
      *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *
GATATTAATA ATTTACTTAA CGATGTTAAT AGACTTATTC CATCAACCCC TTCAAACCTT TCTGGATATT ATAAAATACC AGTTAATGAT ATTAAAATAG ATTGTTTAAG
CTATAATTAT TAAATGAATT GCTACAATTA TCTGAATAAG GTAGTTGGGG AAGTTTGGAA AGACCTATAA TATTTTATGG TCAATTACTA TAATTTTATC TAACAAATTC

      3660        3670        3680        3690        3700        3710        3720        3730        3740        3750        3760
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AGATGTAAAT AATTATTTGG AGGTAAAGGA TATAAAATTA GTCTATCTTT CACATGGAAA TGAATTACCT AATATTAATA ATTATGATAG GAATTTTTTA GGATTTACAG
TCTACATTTA TTAATAAACC TCCATTTCCT ATATTTTAAT CAGATAGAAA GTGTACCTTT ACTTAATGGA TTATAATTAT TAATACTATC CTTAAAAAAT CCTAAATGTC

      3770        3780        3790        3800        3810        3820        3830        3840        3850        3860        3870
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CTGTTATATG TATCAACAAT ACAGGCAGAT CTATGGTTAT GGTAAAACAC TGTAACGGGA AGCAGCATTC TATGGTAACT GGCCTATGTT TAATAGCCAG ATCATTTTAC
GACAATATAC ATAGTTGTTA TGTCCGTCTA GATACCAATA CCATTTTGTG ACATTGCCCT TCGTCGTAAG ATACCATTGA CCGGATACAA ATTATCGGTC TAGTAAAATG

      3880        3890        3900        3910        3920        3930        3940        3950        3960        3970        3980
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AGATATTTGT AAAATGGTGT TTATTATCCT AGGAGATCTA TAAATTATAA TATAGATTGT TGTTGTTTTT TTAAATTGCT ACATACCGGT CTTCATAAAA GATGATTATT

      3990        4000        4010        4020        4030        4040        4050        4060        4070        4080        4090
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TCTATTTCTA TCAGATAGAA TAGATGTTCT ATACTTTCTT CTATTAGTAA ATCATCATCG ATGATTATAC CTTTCTTTAC ATATGTTTTT GCACCTTCGA AAATATAATT

      4100        4110        4120        4130        4140        4150        4160        4170        4180        4190        4200
      *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *
ATAGCATATT ACTAGAAGAT TTAAAATCTA GACTTAGTAT AACAAAACAG TTAAATGCCA ATATCGATTC TATATTTCAT CATAACAGTA GTACATTAAT CAGTGATATA
TATCGTATAA TGATCTTCTA AATTTTAGAT CTGAATCATA TTGTTTTGTC AATTTACGGT TATAGCTAAG ATATAAAGTA GTATTGTCAT CATGTAATTA GTCACTATAT

      4210        4220        4230        4240        4250        4260        4270        4280        4290        4300        4310
      *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *
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      4320        4330        4340        4350        4360        4370        4380        4390        4400        4410        4420
      *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *       *   *
TGATAGGCTG TTAAAAGCTG CAATAAATAG TAAGGATGTA GAAGAAATAC TTTGTTCTAT ACCTTCGGAG GAAAGAACTT TAGAACAACT TAAGTTTAAT CAAACTTGTA
ACTATCCGAC AATTTTCGAC GTTATTTATC ATTCCTACAT CTTCTTTATG AAACAAGATA TGGAAGCCTC CTTTCTTGAA ATCTTGTTGA ATTCAAATTA GTTTGAACAT

      4430
      *   *
TTTATGAAGG TACC
AAATACTTCC ATGG
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